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August 26, 1997

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FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

Mr. William F. Caton  
Acting Secretary  
Federal Communications Commission  
1919 M Street, N.W.  
Washington, D.C. 20554

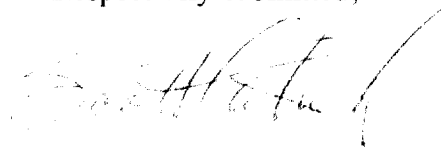
Re: In the Matter of Advanced Television Systems and Their Impact upon  
the Existing Television Broadcast Service  
MM Docket No. 87-268

Dear Mr. Caton:

On August 22, 1997, Paxson Communications Corporation ("PCC") filed a Supplement to its Petition for Reconsideration in the above-referenced matter. The supplement's technical exhibit was a facsimile and did not have an original signature. We are providing an original and 11 copies of the unmodified technical exhibit which was submitted on August 22. This exhibit should be associated with PCC's previous filing.

Please contact the undersigned counsel if any questions should arise concerning this letter.

Respectfully submitted,



Scott S. Patrick

Enclosure

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**EXHIBIT E  
ENGINEERING STATEMENT  
SUPPLYING SUPPLEMENTAL INFORMATION  
IN SUPPORT OF A PETITION FOR RECONSIDERATION  
OF THE SIXTH REPORT AND ORDER IN DOCKET 87-268  
BY PAXSON COMMUNICATIONS CORPORATION**

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Prepared by  
Lohnes and Culver                      Washington, D.C.  
August, 1997

**EXHIBIT E  
ENGINEERING STATEMENT  
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IN SUPPORT OF A PETITION FOR RECONSIDERATION  
OF THE SIXTH REPORT AND ORDER IN DOCKET 87-268  
BY PAXSON COMMUNICATIONS CORPORATION**

**INTRODUCTION**

This statement was prepared on behalf of Paxson Communications Corporation, through its licensee subsidiaries ("PCC") relative to the above referenced FCC Docket and in support of its June 13, 1997 Petition for Reconsideration in the matter. PCC is the FCC licensee of station KTFH-TV Channel 49 at Conroe, Texas. This statement provides information regarding the anticipated propagation and future operation of KTFH on the FCC DTV allocated Channel 5 and suggested reallocation channels.

**KTFH-TV PROPOSED REALLOCATION**

KTFH-TV has been assigned television Channel 5 for use as a DTV channel. In the previous June 13 petition, PCC stated its concerns regarding the potential poor performance of Channel 5 with limited ERP and its position outside of the core of DTV channels. At that time FCC OET Bulletin No. 69 was not yet available, making a substitute channel allotment suggestion impossible.

Because technical information relating to PCC's petition is now available in OET Bulletin No. 69, adopted July 2, 1997 by Commission Order (DA No. 97-1377), this statement supplies supplemental information pertaining to PCC's request for reconsideration of the DTV allotments for KTFH-TV. Specifically, it supports a reallocation to DTV operation on Channel 25 or 16.

## **TECHNICAL ANALYSIS**

The software program needed to verify the PCC proposal to change the DTV channel assignments of KTFH-TV is now available through the release of OET Bulletin No. 69. The office of the undersigned has the complete software package as described in OET Bulletin No. 69 available for use on a computer work station similar to the computers used by OET in the development of the DTV allotment plan. The results of individual market analysis have been compared with service replication and interference evaluations contained in Table 1 of Appendix B of the Sixth Report and Order with total agreement and verification of the accuracy of the program.

### Analysis for KTFH-TV

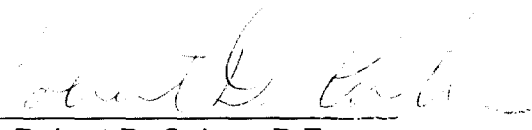
On behalf of PCC, the Office of Lohnes and Culver has conducted an analysis using the software developed by OET to demonstrate that, as an alternative to the FCC DTV Channel 5 allotment, DTV Channel 25 or 16 can be paired with NTSC Channel 49 at Conroe, TX. Attached to this statement as Figure 1 is a computer printout showing an analysis of the allotment of DTV Channel 5 proposed by the Commission in the Sixth Report, as compared with an analysis of the alternative DTV channel allotments proposed by PCC. The analysis indicates that the percent match for replication of the licensed NTSC Channel 49 operation of KTFH-TV for the proposed allotment of DTV Channel 5 is identical with either of the alternative DTV Channel allotments.

A study of other NTSC operations and proposed DTV allotments was conducted to determine the impact on those operations/allotments as a result of the proposed change in the Conroe, TX allotment. The result of that analysis is tabulated on Figure 2. The analysis indicates that the proposed DTV Channel 25 or 16 allotment will have no effect on the percent match for ATV/NTSC replication with respect to all affected DTV allotments and will not cause additional interference to NTSC operations. The predicted interference to the NTSC operation on Channel 5 at San Antonio, TX will be reduced by the proposed KTFH-TV change away from DTV Channel 5 at Conroe, TX.

## CONCLUSION

The analysis for KTFH-TV described above, based on the use of the Commission's computer software, demonstrates that there are no DTV allotments or NTSC operations that would be adversely affected by changing the DTV channel allotment for KTFH-TV to DTV Channel 25 or 16. PCC's proposal to pair an alternative DTV Channel with KTFH-TV is justifiable since the FCC allotment on DTV Channel 5 is not within the tentative DTV core of channels specified in the Sixth Report and Order. PCC requests that Channel 25 be considered its primary reallocation channel to minimize the conflict with land mobile communication in the lower UHF channels. PCC further requests that the Commission reconsider its treatment of the paired DTV allotment for KTFH-TV by evaluating service replication based on a non-directional antenna pattern since that will maximize service area and the impact on other U.S. DTV allotments and NTSC operations may be minimal.

Respectfully submitted,  
LOHNES AND CULVER

  
By, Robert D. Culver, P.E.  
Maryland Reg.No. 19672

August, 1997

**FIGURE 1A**  
**COMPARISON OF DTV PAIRINGS**  
**KTFH-TV WITH FCC DTV CH. 5**  
**KTFH-TV WITH SUBSTITUTE DTV CH. 16**

**SIXTH REPORT AND ORDER**

num atv: 3342  
 num ntsc: 3342  
 cell: 4.0186  
 Analysis of: 49N TX CONROE

	POPULATION	AREA (sq km)
within Noise Limited Contour	3335657	15463.5
not affected by terrain losses	3335657	15463.5
lost to NTSC IX	1069348	2033.4
lost to additional IX by ATV	59	12.1
lost to all IX	1069407	2045.5

Analysis of: 5A TX CONROE

HAAT 359.0 m, ATV ERP 1.0 kW, direction 190.0 degrees T, F/B = 13.9 dB

	POPULATION	AREA (sq km)
within Noise Limited Contour	3335657	15463.5
not affected by terrain losses	3335657	15463.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0
percent match ATV/NTSC	100.0	100.0

**PROPOSED SUBSTITUTION**

num atv: 3342  
 num ntsc: 3342  
 cell: 4.0186  
 Analysis of: 49N TX CONROE

	POPULATION	AREA (sq km)
within Noise Limited Contour	3335657	15463.5
not affected by terrain losses	3335657	15463.5
lost to NTSC IX	1069348	2033.4
lost to additional IX by ATV	59	12.1
lost to all IX	1069407	2045.5

Analysis of: 16A TX CONROE

HAAT 359.0 m, ATV ERP 70.2 kW, direction 190.0 degrees T, F/B = 18.8 dB

	POPULATION	AREA (sq km)
within Noise Limited Contour	3335657	15463.5
not affected by terrain losses	3335657	15463.5
lost to NTSC IX	2767	4.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	2767	4.0
percent match ATV/NTSC	100.0	100.0

Prepared by  
 Lohnes and Culver Washington, D.C.  
 August, 1997

**FIGURE 1B**  
**COMPARISON OF DTV PAIRINGS**  
**KTFH-TV WITH FCC DTV CH. 5**  
**KTFH-TV WITH SUBSTITUTE DTV CH. 25**

**SIXTH REPORT AND ORDER**

num atv: 3342  
num ntsc: 3342  
cell: 4.0186

Analysis of: 49N TX CONROE

	POPULATION	AREA (sq km)
within Noise Limited Contour	3335657	15463.5
not affected by terrain losses	3335657	15463.5
lost to NTSC IX	1069348	2033.4
lost to additional IX by ATV	59	12.1
lost to all IX	1069407	2045.5

Analysis of: 5A TX CONROE

HAAT 359.0 m, ATV ERP 1.0 kW, direction 190.0 degrees T, F/B = 13.9 dB

	POPULATION	AREA (sq km)
within Noise Limited Contour	3335657	15463.5
not affected by terrain losses	3335657	15463.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0
percent match ATV/NTSC	100.0	100.0

**PROPOSED SUBSTITUTION**

num atv: 3342  
num ntsc: 3342  
cell: 4.0186

Analysis of: 49N TX CONROE

	POPULATION	AREA (sq km)
within Noise Limited Contour	3335657	15463.5
not affected by terrain losses	3335657	15463.5
lost to NTSC IX	1069348	2033.4
lost to additional IX by ATV	59	12.1
lost to all IX	1069407	2045.5

Analysis of: 25A TX CONROE

HAAT 359.0 m, ATV ERP 86.7 kW, direction 190.0 degrees T, F/B = 18.8 dB

	POPULATION	AREA (sq km)
within Noise Limited Contour	3335657	15463.5
not affected by terrain losses	3335657	15463.5
lost to NTSC IX	3	4.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	3	4.0
lost to all IX	3	4.0
percent match ATV/NTSC	100.0	100.0

Lohnes and Culver      Washington, D.C.  
August, 1997

# **FIGURE 2A** **ANALYSIS OF NTSC/ATV STATIONS** **AFFECTED BY CHANNEL 16 DTV PAIRING FOR KTFH-TV**

## **KTFH PAIRED WITH CH. 5 (SIXTH R&O)**

```

num atv:      10684
num ntsc:     10690
cell:         4.0351
Analysis of:  5N LA ALEXANDRIA

      POPULATION      AREA (sq km)
within Noise Limited Contour      1004324      44483.0
not affected by terrain losses      998277      43704.3
lost to NTSC IX                    16508        569.0
lost to additional IX by ATV         0           0.0
lost to all IX                     16508        569.0

Analysis of:  35A LA ALEXANDRIA
HAAT  485.0 m, ATV ERP 1000.0 kW, Cap Adj 2.2 dB 90.0 deg T
      POPULATION      AREA (sq km)
within Noise Limited Contour      1004324      44483.0
not affected by terrain losses      1000586      44103.7
lost to NTSC IX                    0           0.0
lost to additional IX by ATV        655        169.5
lost to ATV IX only                 655        169.5
lost to all IX                     655        169.5
percent match ATV/NTSC              100.0        99.9
  
```

## **KTFH PAIRED WITH CH. 16 (PROP.)**

```

num atv:      10684
num ntsc:     10690
cell:         4.0351
Analysis of:  5N LA ALEXANDRIA

      POPULATION      AREA (sq km)
within Noise Limited Contour      1004324      44483.0
not affected by terrain losses      998277      43704.3
lost to NTSC IX                    16508        569.0
lost to additional IX by ATV         0           0.0
lost to all IX                     16508        569.0

Analysis of:  35A LA ALEXANDRIA
HAAT  485.0 m, ATV ERP 1000.0 kW, Cap Adj 2.2 dB 90.0 deg T
      POPULATION      AREA (sq km)
within Noise Limited Contour      1004324      44483.0
not affected by terrain losses      1000586      44103.7
lost to NTSC IX                    0           0.0
lost to additional IX by ATV        655        169.5
lost to ATV IX only                 655        169.5
lost to all IX                     655        169.5
percent match ATV/NTSC              100.0        99.9
  
```

```

=====
num atv:      7063
num ntsc:     7063
cell:         4.0190
Analysis of:  6N TX BEAUMONT

      POPULATION      AREA (sq km)
within Noise Limited Contour      704455      33285.1
not affected by terrain losses      703695      33100.3
lost to NTSC IX                    63684      4714.3
lost to additional IX by ATV         0           0.0
lost to all IX                     63684      4714.3

Analysis of:  21A TX BEAUMONT
HAAT  293.0 m, ATV ERP 1000.0 kW, Cap Adj 1.6 dB
      POPULATION      AREA (sq km)
within Noise Limited Contour      704455      33285.1
not affected by terrain losses      704249      33184.7
lost to NTSC IX                    121         64.3
lost to additional IX by ATV         0           0.0
lost to ATV IX only                 7           8.0
lost to all IX                     121         64.3
percent match ATV/NTSC              100.0      100.0
  
```

```

=====
num atv:      7063
num ntsc:     7063
cell:         4.0190
Analysis of:  6N TX BEAUMONT

      POPULATION      AREA (sq km)
within Noise Limited Contour      704455      33285.1
not affected by terrain losses      703695      33100.3
lost to NTSC IX                    63684      4714.3
lost to additional IX by ATV         0           0.0
lost to all IX                     63684      4714.3

Analysis of:  21A TX BEAUMONT
HAAT  293.0 m, ATV ERP 1000.0 kW, Cap Adj 1.6 dB
      POPULATION      AREA (sq km)
within Noise Limited Contour      704455      33285.1
not affected by terrain losses      704249      33184.7
lost to NTSC IX                    121         64.3
lost to additional IX by ATV         0           0.0
lost to ATV IX only                 7           8.0
lost to all IX                     121         64.3
percent match ATV/NTSC              100.0      100.0
  
```



## FIGURE 2A (CONTINUED)

num atv: 9856			num atv: 9856		
num ntsc: 9856			num ntsc: 9856		
cell: 4.0189			cell: 4.0189		
Analysis of: 5N TX FORT WORTH			Analysis of: 5N TX FORT WORTH		
	POPULATION	AREA (sq km)		POPULATION	AREA (sq km)
within Noise Limited Contour	4418651	46297.3	within Noise Limited Contour	4418651	46297.3
not affected by terrain losses	4400524	45059.5	not affected by terrain losses	4400524	45059.5
lost to NTSC IX	173366	5449.6	lost to NTSC IX	173366	5449.6
lost to additional IX by ATV	0	0.0	lost to additional IX by ATV	0	0.0
lost to all IX	173366	5449.6	lost to all IX	173366	5449.6
Analysis of: 41A TX FORT WORTH			Analysis of: 41A TX FORT WORTH		
HAAT 514.0 m, ATV ERP 1000.0 kW, Cap Adj 3.0 dB 315.0 deg T			HAAT 514.0 m, ATV ERP 1000.0 kW, Cap Adj 3.0 dB 315.0 deg T		
	POPULATION	AREA (sq km)		POPULATION	AREA (sq km)
within Noise Limited Contour	4418651	46297.3	within Noise Limited Contour	4418651	46297.3
not affected by terrain losses	4411022	45537.8	not affected by terrain losses	4411022	45537.8
lost to NTSC IX	0	0.0	lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0	lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0	lost to ATV IX only	0	0.0
lost to all IX	0	0.0	lost to all IX	0	0.0
percent match ATV/NTSC	100.0	100.0	percent match ATV/NTSC	100.0	100.0
=====			=====		
num atv: 8976			num atv: 8976		
num ntsc: 9027			num ntsc: 9027		
cell: 4.0004			cell: 4.0004		
Analysis of: 5N TX SAN ANTONIO			Analysis of: 5N TX SAN ANTONIO		
	POPULATION	AREA (sq km)		POPULATION	AREA (sq km)
within Noise Limited Contour	1663667	40635.9	within Noise Limited Contour	1663667	40635.9
not affected by terrain losses	1638940	39003.8	not affected by terrain losses	1638940	39003.8
lost to NTSC IX	51375	2892.3	lost to NTSC IX	51375	2892.3
lost to additional IX by ATV	36	4.0	lost to additional IX by ATV	0	0.0
lost to all IX	51411	2896.3	lost to all IX	51375	2892.3
Analysis of: 55A TX SAN ANTONIO			Analysis of: 55A TX SAN ANTONIO		
HAAT 424.0 m, ATV ERP 1000.0 kW, Cap Adj 3.3 dB			HAAT 424.0 m, ATV ERP 1000.0 kW, Cap Adj 3.3 dB		
	POPULATION	AREA (sq km)		POPULATION	AREA (sq km)
within Noise Limited Contour	1663667	40635.9	within Noise Limited Contour	1663667	40635.9
not affected by terrain losses	1646977	39239.8	not affected by terrain losses	1646977	39239.8
lost to NTSC IX	39595	452.0	lost to NTSC IX	39595	452.0
lost to additional IX by ATV	13	8.0	lost to additional IX by ATV	13	8.0
lost to ATV IX only	37917	412.0	lost to ATV IX only	37917	412.0
lost to all IX	39608	460.0	lost to all IX	39608	460.0
percent match ATV/NTSC	99.3	99.4	percent match ATV/NTSC	99.3	99.4
=====			=====		
num atv: 1018			num atv: 1018		
num ntsc: 1018			num ntsc: 1018		
cell: 3.9990			cell: 3.9990		
Analysis of: 15N TX COLLEGE STATION			Analysis of: 15N TX COLLEGE STATION		
	POPULATION	AREA (sq km)		POPULATION	AREA (sq km)
within Noise Limited Contour	137391	4071.0	within Noise Limited Contour	137391	4071.0
not affected by terrain losses	137391	4071.0	not affected by terrain losses	137391	4071.0
lost to NTSC IX	0	0.0	lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0	lost to additional IX by ATV	0	0.0
lost to all IX	0	0.0	lost to all IX	0	0.0
Analysis of: 12A TX COLLEGE STATION			Analysis of: 12A TX COLLEGE STATION		
HAAT 119.0 m, ATV ERP 3.2 kW, direction 315.0 degrees T			HAAT 119.0 m, ATV ERP 3.2 kW, direction 315.0 degrees T		
	POPULATION	AREA (sq km)		POPULATION	AREA (sq km)
within Noise Limited Contour	137391	4071.0	within Noise Limited Contour	137391	4071.0
not affected by terrain losses	137391	4071.0	not affected by terrain losses	137391	4071.0
lost to NTSC IX	0	0.0	lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0	lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0	lost to ATV IX only	0	0.0
lost to all IX	0	0.0	lost to all IX	0	0.0
percent match ATV/NTSC	100.0	100.0	percent match ATV/NTSC	100.0	100.0

FIGURE 2A (CONTINUED)

num atv: 10750  
num ntsc: 10750  
cell: 3.9884  
Analysis of: 11N TX HOUSTON

	POPULATION	AREA (sq km)
within Noise Limited Contour	3901485	44614.2
not affected by terrain losses	3898739	44083.7
lost to NTSC IX	19517	1208.5
lost to additional IX by ATV	0	0.0
lost to all IX	19517	1208.5

Analysis of: 31A TX HOUSTON

HAAT 570.0 m, ATV ERP 751.7 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3901485	44614.2
not affected by terrain losses	3901150	44550.3
lost to NTSC IX	0	0.0
lost to additional IX by ATV	28	12.0
lost to ATV IX only	28	12.0
lost to all IX	28	12.0
percent match ATV/NTSC	100.0	100.0

num atv: 10750  
num ntsc: 10750  
cell: 3.9884  
Analysis of: 11N TX HOUSTON

	POPULATION	AREA (sq km)
within Noise Limited Contour	3901485	44614.2
not affected by terrain losses	3898739	44083.7
lost to NTSC IX	19517	1208.5
lost to additional IX by ATV	0	0.0
lost to all IX	19517	1208.5

Analysis of: 31A TX HOUSTON

HAAT 570.0 m, ATV ERP 751.7 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3901485	44614.2
not affected by terrain losses	3901150	44550.3
lost to NTSC IX	0	0.0
lost to additional IX by ATV	28	12.0
lost to ATV IX only	28	12.0
lost to all IX	28	12.0
percent match ATV/NTSC	100.0	100.0

num atv: 3767  
num ntsc: 3767  
cell: 4.0046  
Analysis of: 16N TX CORPUS CHRISTI

	POPULATION	AREA (sq km)
within Noise Limited Contour	446867	15085.2
not affected by terrain losses	446867	15085.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to all IX	0	0.0

Analysis of: 22A TX CORPUS CHRISTI

HAAT 296.0 m, ATV ERP 50.0 kW, direction 342.0 degrees T

	POPULATION	AREA (sq km)
within Noise Limited Contour	446867	15085.2
not affected by terrain losses	446867	15085.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0
percent match ATV/NTSC	100.0	100.0

num atv: 3767  
num ntsc: 3767  
cell: 4.0046  
Analysis of: 16N TX CORPUS CHRISTI

	POPULATION	AREA (sq km)
within Noise Limited Contour	446867	15085.2
not affected by terrain losses	446867	15085.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to all IX	0	0.0

Analysis of: 22A TX CORPUS CHRISTI

HAAT 296.0 m, ATV ERP 50.0 kW, direction 342.0 degrees T

	POPULATION	AREA (sq km)
within Noise Limited Contour	446867	15085.2
not affected by terrain losses	446867	15085.2
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0
percent match ATV/NTSC	100.0	100.0

num atv: 6343  
num ntsc: 6343  
cell: 4.0389  
Analysis of: 14N TX HOUSTON

	POPULATION	AREA (sq km)
within Noise Limited Contour	3783542	25808.8
not affected by terrain losses	3783542	25804.7
lost to NTSC IX	2114	185.8
lost to additional IX by ATV	533	28.3
lost to all IX	2647	214.1

Analysis of: 24A TX HOUSTON

HAAT 438.0 m, ATV ERP 265.2 kW, direction 30.0 degrees T

	POPULATION	AREA (sq km)
within Noise Limited Contour	3783542	25808.8
not affected by terrain losses	3783542	25804.7
lost to NTSC IX	1336	20.2
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	1336	20.2
percent match ATV/NTSC	100.0	100.0

num atv: 6343  
num ntsc: 6343  
cell: 4.0389  
Analysis of: 14N TX HOUSTON

	POPULATION	AREA (sq km)
within Noise Limited Contour	3783542	25808.8
not affected by terrain losses	3783542	25804.7
lost to NTSC IX	2114	185.8
lost to additional IX by ATV	533	28.3
lost to all IX	2647	214.1

Analysis of: 24A TX HOUSTON

HAAT 438.0 m, ATV ERP 265.2 kW, direction 30.0 degrees T

	POPULATION	AREA (sq km)
within Noise Limited Contour	3783542	25808.8
not affected by terrain losses	3783542	25804.7
lost to NTSC IX	1336	20.2
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	1336	20.2
percent match ATV/NTSC	100.0	100.0

FIGURE 2A (CONTINUED)

num atv: 6904  
num ntsc: 6904  
cell: 4.0358  
Analysis of: 20N TX HOUSTON

	POPULATION	AREA (sq km)
within Noise Limited Contour	3787966	27903.7
not affected by terrain losses	3787631	27867.4
lost to NTSC IX	73	4.0
lost to additional IX by ATV	3603	201.8
lost to all IX	3676	205.8

Analysis of: 19A TX HOUSTON

HAAT 552.0 m, ATV ERP 228.8 kW, direction 30.0 degrees T

	POPULATION	AREA (sq km)
within Noise Limited Contour	3787966	27903.7
not affected by terrain losses	3787774	27891.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0
percent match ATV/NTSC	100.0	100.0

num atv: 6904  
num ntsc: 6904  
cell: 4.0358  
Analysis of: 20N TX HOUSTON

	POPULATION	AREA (sq km)
within Noise Limited Contour	3787966	27903.7
not affected by terrain losses	3787631	27867.4
lost to NTSC IX	73	4.0
lost to additional IX by ATV	3603	201.8
lost to all IX	3676	205.8

Analysis of: 19A TX HOUSTON

HAAT 552.0 m, ATV ERP 228.8 kW, direction 30.0 degrees T

	POPULATION	AREA (sq km)
within Noise Limited Contour	3787966	27903.7
not affected by terrain losses	3787774	27891.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0
percent match ATV/NTSC	100.0	100.0

num atv: 4958  
num ntsc: 4958  
cell: 4.0117  
Analysis of: 15N LA LAFAYETTE

	POPULATION	AREA (sq km)
within Noise Limited Contour	585965	19890.0
not affected by terrain losses	585965	19890.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to all IX	0	0.0

Analysis of: 16A LA LAFAYETTE

HAAT 360.0 m, ATV ERP 89.1 kW, direction 140.0 degrees T

	POPULATION	AREA (sq km)
within Noise Limited Contour	585965	19890.0
not affected by terrain losses	585965	19890.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0
percent match ATV/NTSC	100.0	100.0

num atv: 4958  
num ntsc: 4958  
cell: 4.0117  
Analysis of: 15N LA LAFAYETTE

	POPULATION	AREA (sq km)
within Noise Limited Contour	585965	19890.0
not affected by terrain losses	585965	19890.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to all IX	0	0.0

Analysis of: 16A LA LAFAYETTE

HAAT 360.0 m, ATV ERP 89.1 kW, direction 140.0 degrees T

	POPULATION	AREA (sq km)
within Noise Limited Contour	585965	19890.0
not affected by terrain losses	585965	19890.0
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0
percent match ATV/NTSC	100.0	100.0

num atv: 7709  
num ntsc: 7709  
cell: 3.9954  
Analysis of: 22N TX GALVESTON

	POPULATION	AREA (sq km)
within Noise Limited Contour	3696126	30800.6
not affected by terrain losses	3696126	30800.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to all IX	0	0.0

Analysis of: 23A TX GALVESTON

HAAT 566.0 m, ATV ERP 236.0 kW, direction 350.0 degrees T

	POPULATION	AREA (sq km)
within Noise Limited Contour	3696126	30800.6
not affected by terrain losses	3696126	30800.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0
percent match ATV/NTSC	100.0	100.0

num atv: 7709  
num ntsc: 7709  
cell: 3.9954  
Analysis of: 22N TX GALVESTON

	POPULATION	AREA (sq km)
within Noise Limited Contour	3696126	30800.6
not affected by terrain losses	3696126	30800.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to all IX	0	0.0

Analysis of: 23A TX GALVESTON

HAAT 566.0 m, ATV ERP 236.0 kW, direction 350.0 degrees T

	POPULATION	AREA (sq km)
within Noise Limited Contour	3696126	30800.6
not affected by terrain losses	3696126	30800.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0
percent match ATV/NTSC	100.0	100.0

# **FIGURE 2B** **ANALYSIS OF NTSC/ATV STATIONS** **AFFECTED BY CHANNEL 25 DTV PAIRING FOR KTFH-TV**

## **KTFH PAIRED WITH CH. 5 (SIXTH R&O)**

## **KTFH PAIRED WITH CH. 25 (PROP.)**

### ANALYSES BEFORE MOVING KTFH TO CHANNEL 25

#### Analysis of: 5N LA ALEXANDRIA

	POPULATION	AREA (sq km)
within Noise Limited Contour	1004324	44483.0
not affected by terrain losses	998277	43704.3
lost to NTSC IX	16508	569.0
lost to additional IX by ATV	0	0.0
lost to all IX	16508	569.0

#### Analysis of: 35A LA ALEXANDRIA

HAAT 485.0 m, ATV ERP 1000.0 kW, Cap Adj	POPULATION	AREA (sq km)	2.2 dB	90.0 deg T
within Noise Limited Contour	1004324	44483.0		
not affected by terrain losses	1000586	44103.7		
lost to NTSC IX	0	0.0		
lost to additional IX by ATV	655	169.5		
lost to ATV IX only	655	169.5		
lost to all IX	655	169.5		
percent match ATV/NTSC	100.0	99.9		

### ANALYSES AFTER MOVING KTFH TO CHANNEL 25

#### Analysis of: 5N LA ALEXANDRIA

	POPULATION	AREA (sq km)
within Noise Limited Contour	1004324	44483.0
not affected by terrain losses	998277	43704.3
lost to NTSC IX	16508	569.0
lost to additional IX by ATV	0	0.0
lost to all IX	16508	569.0

#### Analysis of: 35A LA ALEXANDRIA

HAAT 485.0 m, ATV ERP 1000.0 kW, Cap Adj	POPULATION	AREA (sq km)	2.2 dB	90.0 deg T
within Noise Limited Contour	1004324	44483.0		
not affected by terrain losses	1000586	44103.7		
lost to NTSC IX	0	0.0		
lost to additional IX by ATV	655	169.5		
lost to ATV IX only	655	169.5		
lost to all IX	655	169.5		
percent match ATV/NTSC	100.0	99.9		

#### Analysis of: 6N TX BEAUMONT

	POPULATION	AREA (sq km)
within Noise Limited Contour	704455	33285.1
not affected by terrain losses	703695	33100.3
lost to NTSC IX	63684	4714.3
lost to additional IX by ATV	0	0.0
lost to all IX	63684	4714.3

#### Analysis of: 21A TX BEAUMONT

HAAT 293.0 m, ATV ERP 1000.0 kW, Cap Adj	POPULATION	AREA (sq km)	1.6 dB
within Noise Limited Contour	704455	33285.1	
not affected by terrain losses	704249	33184.7	
lost to NTSC IX	121	64.3	
lost to additional IX by ATV	0	0.0	
lost to ATV IX only	7	8.0	
lost to all IX	121	64.3	
percent match ATV/NTSC	100.0	100.0	

#### Analysis of: 6N TX BEAUMONT

	POPULATION	AREA (sq km)
within Noise Limited Contour	704455	33285.1
not affected by terrain losses	703695	33100.3
lost to NTSC IX	63684	4714.3
lost to additional IX by ATV	0	0.0
lost to all IX	63684	4714.3

#### Analysis of: 21A TX BEAUMONT

HAAT 293.0 m, ATV ERP 1000.0 kW, Cap Adj	POPULATION	AREA (sq km)	1.6 dB
within Noise Limited Contour	704455	33285.1	
not affected by terrain losses	704249	33184.7	
lost to NTSC IX	121	64.3	
lost to additional IX by ATV	0	0.0	
lost to ATV IX only	7	8.0	
lost to all IX	121	64.3	
percent match ATV/NTSC	100.0	100.0	

#### Analysis of: 5N TX FORT WORTH

	POPULATION	AREA (sq km)
within Noise Limited Contour	4418651	46297.3
not affected by terrain losses	4400524	45059.5
lost to NTSC IX	173366	5449.6
lost to additional IX by ATV	0	0.0
lost to all IX	173366	5449.6

#### Analysis of: 41A TX FORT WORTH

HAAT 514.0 m, ATV ERP 1000.0 kW, Cap Adj	POPULATION	AREA (sq km)	3.0 dB	315.0 deg T
within Noise Limited Contour	4418651	46297.3		
not affected by terrain losses	4411022	45537.8		
lost to NTSC IX	0	0.0		
lost to additional IX by ATV	0	0.0		
lost to ATV IX only	0	0.0		
lost to all IX	0	0.0		
percent match ATV/NTSC	100.0	100.0		

#### Analysis of: 5N TX FORT WORTH

	POPULATION	AREA (sq km)
within Noise Limited Contour	4418651	46297.3
not affected by terrain losses	4400524	45059.5
lost to NTSC IX	173366	5449.6
lost to additional IX by ATV	0	0.0
lost to all IX	173366	5449.6

#### Analysis of: 41A TX FORT WORTH

HAAT 514.0 m, ATV ERP 1000.0 kW, Cap Adj	POPULATION	AREA (sq km)	3.0 dB	315.0 deg T
within Noise Limited Contour	4418651	46297.3		
not affected by terrain losses	4411022	45537.8		
lost to NTSC IX	0	0.0		
lost to additional IX by ATV	0	0.0		
lost to ATV IX only	0	0.0		
lost to all IX	0	0.0		
percent match ATV/NTSC	100.0	100.0		

# FIGURE 2B (CONTINUED)

## Analysis of: 5N TX SAN ANTONIO

	POPULATION	AREA (sq km)
within Noise Limited Contour	1663667	40635.9
not affected by terrain losses	1638940	39003.8
lost to NTSC IX	51375	2892.3
lost to additional IX by ATV	36	4.0
lost to all IX	51411	2896.3

## Analysis of: 55A TX SAN ANTONIO

HAAT 424.0 m, ATV ERP 1000.0 kW, Cap Adj 3.3 dB	POPULATION	AREA (sq km)
within Noise Limited Contour	1663667	40635.9
not affected by terrain losses	1646977	39239.8
lost to NTSC IX	39595	452.0
lost to additional IX by ATV	13	8.0
lost to ATV IX only	37917	412.0
lost to all IX	39608	460.0
percent match ATV/NTSC	99.3	99.4

## Analysis of: 5N TX SAN ANTONIO

	POPULATION	AREA (sq km)
within Noise Limited Contour	1663667	40635.9
not affected by terrain losses	1638940	39003.8
lost to NTSC IX	51375	2892.3
lost to additional IX by ATV	0	0.0
lost to all IX	51375	2892.3

## Analysis of: 55A TX SAN ANTONIO

HAAT 424.0 m, ATV ERP 1000.0 kW, Cap Adj 3.3 dB	POPULATION	AREA (sq km)
within Noise Limited Contour	1663667	40635.9
not affected by terrain losses	1646977	39239.8
lost to NTSC IX	39595	452.0
lost to additional IX by ATV	13	8.0
lost to ATV IX only	37917	412.0
lost to all IX	39608	460.0
percent match ATV/NTSC	99.3	99.4

## Analysis of: 25N LA ALEXANDRIA

	POPULATION	AREA (sq km)
within Noise Limited Contour	317703	19607.1
not affected by terrain losses	317534	19575.0
lost to NTSC IX	208	48.2
lost to additional IX by ATV	0	0.0
lost to all IX	208	48.2

## Analysis of: 26A LA ALEXANDRIA

HAAT 415.0 m, ATV ERP 64.6 kW, direction 190.0 degrees T	POPULATION	AREA (sq km)
within Noise Limited Contour	317703	19607.1
not affected by terrain losses	317695	19603.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	4.0
lost to ATV IX only	0	4.0
lost to all IX	0	4.0
percent match ATV/NTSC	100.0	100.0

## Analysis of: 25N LA ALEXANDRIA

	POPULATION	AREA (sq km)
within Noise Limited Contour	317703	19607.1
not affected by terrain losses	317534	19575.0
lost to NTSC IX	208	48.2
lost to additional IX by ATV	0	0.0
lost to all IX	208	48.2

## Analysis of: 26A LA ALEXANDRIA

HAAT 415.0 m, ATV ERP 64.6 kW, direction 190.0 degrees T	POPULATION	AREA (sq km)
within Noise Limited Contour	317703	19607.1
not affected by terrain losses	317695	19603.1
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	4.0
lost to ATV IX only	0	4.0
lost to all IX	0	4.0
percent match ATV/NTSC	100.0	100.0

## Analysis of: 22N TX GALVESTON

	POPULATION	AREA (sq km)
within Noise Limited Contour	3696126	30800.6
not affected by terrain losses	3696126	30800.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to all IX	0	0.0

## Analysis of: 23A TX GALVESTON

HAAT 566.0 m, ATV ERP 236.0 kW, direction 350.0 degrees T	POPULATION	AREA (sq km)
within Noise Limited Contour	3696126	30800.6
not affected by terrain losses	3696126	30800.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0
percent match ATV/NTSC	100.0	100.0

## Analysis of: 22N TX GALVESTON

	POPULATION	AREA (sq km)
within Noise Limited Contour	3696126	30800.6
not affected by terrain losses	3696126	30800.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to all IX	0	0.0

## Analysis of: 23A TX GALVESTON

HAAT 566.0 m, ATV ERP 236.0 kW, direction 350.0 degrees T	POPULATION	AREA (sq km)
within Noise Limited Contour	3696126	30800.6
not affected by terrain losses	3696126	30800.6
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0
percent match ATV/NTSC	100.0	100.0

# FIGURE 2B (CONTINUED)

## Analysis of: 26N TX HOUSTON

	POPULATION	AREA (sq km)
within Noise Limited Contour	3825068	31379.9
not affected by terrain losses	3824678	31339.5
lost to NTSC IX	8750	238.2
lost to additional IX by ATV	2345	141.3
lost to all IX	11095	379.6

## Analysis of: 27A TX HOUSTON

HAAT 594.0 m, ATV ERP 228.8 kW, direction 40.0 degrees T		
	POPULATION	AREA (sq km)
within Noise Limited Contour	3825068	31379.9
not affected by terrain losses	3824848	31367.7
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0
percent match ATV/NTSC	100.0	100.0

## Analysis of: 26N TX HOUSTON

	POPULATION	AREA (sq km)
within Noise Limited Contour	3825068	31379.9
not affected by terrain losses	3824678	31339.5
lost to NTSC IX	8750	238.2
lost to additional IX by ATV	2345	141.3
lost to all IX	11095	379.6

## Analysis of: 27A TX HOUSTON

HAAT 594.0 m, ATV ERP 228.8 kW, direction 40.0 degrees T		
	POPULATION	AREA (sq km)
within Noise Limited Contour	3825068	31379.9
not affected by terrain losses	3824848	31367.7
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0
percent match ATV/NTSC	100.0	100.0

## Analysis of: 39N TX HOUSTON

	POPULATION	AREA (sq km)
within Noise Limited Contour	3779622	27743.5
not affected by terrain losses	3778892	27699.1
lost to NTSC IX	2596	169.5
lost to additional IX by ATV	394	4.0
lost to all IX	2990	173.6

## Analysis of: 38A TX HOUSTON

HAAT 594.0 m, ATV ERP 199.5 kW, direction 70.0 degrees T		
	POPULATION	AREA (sq km)
within Noise Limited Contour	3779622	27743.5
not affected by terrain losses	3779574	27731.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	186	8.1
lost to ATV IX only	186	8.1
lost to all IX	186	8.1
percent match ATV/NTSC	100.0	100.0

## Analysis of: 39N TX HOUSTON

	POPULATION	AREA (sq km)
within Noise Limited Contour	3779622	27743.5
not affected by terrain losses	3778892	27699.1
lost to NTSC IX	2596	169.5
lost to additional IX by ATV	394	4.0
lost to all IX	2990	173.6

## Analysis of: 38A TX HOUSTON

HAAT 594.0 m, ATV ERP 199.5 kW, direction 70.0 degrees T		
	POPULATION	AREA (sq km)
within Noise Limited Contour	3779622	27743.5
not affected by terrain losses	3779574	27731.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	186	8.1
lost to ATV IX only	186	8.1
lost to all IX	186	8.1
percent match ATV/NTSC	100.0	100.0

## Analysis of: 25N TX VICTORIA

	POPULATION	AREA (sq km)
within Noise Limited Contour	164600	16144.5
not affected by terrain losses	164600	16144.5
lost to NTSC IX	254	60.3
lost to additional IX by ATV	0	0.0
lost to all IX	254	60.3

## Analysis of: 15A TX VICTORIA

HAAT 311.0 m, ATV ERP 50.0 kW, direction 270.0 degrees T		
	POPULATION	AREA (sq km)
within Noise Limited Contour	164600	16144.5
not affected by terrain losses	164600	16144.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0
percent match ATV/NTSC	100.0	100.0

## Analysis of: 25N TX VICTORIA

	POPULATION	AREA (sq km)
within Noise Limited Contour	164600	16144.5
not affected by terrain losses	164600	16144.5
lost to NTSC IX	254	60.3
lost to additional IX by ATV	0	0.0
lost to all IX	254	60.3

## Analysis of: 15A TX VICTORIA

HAAT 311.0 m, ATV ERP 50.0 kW, direction 270.0 degrees T		
	POPULATION	AREA (sq km)
within Noise Limited Contour	164600	16144.5
not affected by terrain losses	164600	16144.5
lost to NTSC IX	0	0.0
lost to additional IX by ATV	0	0.0
lost to ATV IX only	0	0.0
lost to all IX	0	0.0
percent match ATV/NTSC	100.0	100.0

## FIGURE 2B (CONTINUED)

Analysis of: 25N TX WACO			Analysis of: 25N TX WACO		
	POPULATION	AREA (sq km)		POPULATION	AREA (sq km)
within Noise Limited Contour	718975	29295.0	within Noise Limited Contour	718975	29295.0
not affected by terrain losses	715405	28896.8	not affected by terrain losses	715405	28896.8
lost to NTSC IX	120776	2634.3	lost to NTSC IX	120776	2634.3
lost to additional IX by ATV	0	0.0	lost to additional IX by ATV	0	0.0
lost to all IX	120776	2634.3	lost to all IX	120776	2634.3
Analysis of: 26A TX WACO			Analysis of: 26A TX WACO		
HAAT 558.0 m, ATV ERP 224.6 kW, direction 200.0 degrees T			HAAT 558.0 m, ATV ERP 224.6 kW, direction 200.0 degrees T		
	POPULATION	AREA (sq km)		POPULATION	AREA (sq km)
within Noise Limited Contour	718975	29295.0	within Noise Limited Contour	718975	29295.0
not affected by terrain losses	718564	29154.2	not affected by terrain losses	718564	29154.2
lost to NTSC IX	114	52.3	lost to NTSC IX	114	52.3
lost to additional IX by ATV	38	28.2	lost to additional IX by ATV	38	28.2
lost to ATV IX only	84	44.2	lost to ATV IX only	84	44.2
lost to all IX	152	80.4	lost to all IX	152	80.4
percent match ATV/NTSC	100.0	100.0	percent match ATV/NTSC	100.0	100.0

Prepared by  
Lohnes and Culver      Washington, D.C.  
August, 1997